

**Answers to Commonly Asked Questions About the
Madera Ranch Groundwater Banking Project**

1. What assurances are there that the environment will actually get water from Madera Ranch?

The rights and interests of the participants in the Project will be protected first by contracts and second by the Project's operating principles. The operating principles will be developed in a cooperative effort between all of the parties that have contributed funds to pay for the Project. Decisions on when, where, and how to use the environmental share of water stored in the Project will be made by either an environmental agency, consortium of environmental agencies (e.g., F&WS, DF&G, and NMFS) or by an environmental trustee set up specifically for that purpose.

2. How can the water be used to benefit the environment?

Water stored in Madera Ranch may be used by the environment in a variety of ways.

- Water could be used to provide additional San Joaquin River instream flows in excess of those provided by the Vernalis Adaptive Management Plan.
- Water could be used to meet Level 4 refuge demands for south of Delta refuges
- Water could be delivered to consumptive uses in exchange for reduced export pumping during environmentally sensitive times.
- Water could be sold to consumptive users and the money used to fund other environmental restoration projects.

3. What public outreach has been done?

Several members of the local community around Madera Ranch have expressed concerns about the project. Interior has held two public information meetings in the local area and the current owner of Madera Ranch has sponsored several meetings with adjacent landowners. The concerns expressed are valid and must be taken in to account in implementing the project. Although this may not be easy, it has been accomplished for other groundwater banking projects. In addition to the normal CEQA and NEPA processes, Interior will agree to hold public meetings and workshops throughout implementation of the project to ensure that adjacent landowners have input to and are knowledgeable about how the project will operate.

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4. How can adjacent landowners be protected from operational impacts to groundwater supplies?

The Semitropic Groundwater Banking Program serves as a real life example. There the groundwater banking partners developed an operational rule that limits the ability to use the project in any year the water table drops by more than 15 feet or a total of more than 15 feet in any three consecutive years. In addition the groundwater banking partners formed a groundwater monitoring committee composed of the adjacent landowners. The monitoring committee meets monthly to review the project's operations and impacts on groundwater levels. The same or a similar type of protection for adjacent landowners can be built into the operational principles of the Madera Ranch project.

5. What operational criteria will be used to determine when water is used for environmental purposes and when water is used for consumptive purposes?

Operational criteria has not yet been developed. Operational criteria will be developed between Interior and the participating interests. If funds from environmental sources are used then CALFED agencies such as the F&WS and CDF&G must be part of developing the operational criteria to ensure environmental benefits equal to their investment are realized. If funds from agricultural or urban interests are used then those interests also must be part of developing the operational criteria. This is consistent with CALFED's beneficiary pays principle.

6. What if the land is purchased but the groundwater banking portion of the project proves to be infeasible?

If this scenario occurs, then there is some potential that those who have invested in the project will end up owning a very large piece (13,600 acres) of priority 1 habitat. As priority 1 habitat the F&WS has indicated that up to 40 special status species may benefit from the purchase of Madera Ranch. Specifically, the F&WS has indicated that the Kit Fox, Blunt-Nosed Leopard Lizard, Kangaroo Rat and vernal pools are present on this type of habitat. As a result, even if the groundwater banking portion of the project is infeasible, significant environmental benefit will have been gained through the protection of more than 13,600 acres of priority 1 habitat for a wide variety of special status terrestrial species. One inconsistency that should be noted is that if this scenario occurs then water acquisition monies will have been used to purchase terrestrial habitat.

7. What are the project costs?

Land costs are \$40 million plus the possibility of a \$10 million premium and facilities costs are estimated at \$60 million. Based on these numbers the per acre-foot costs are estimated at between \$150 to \$175 including the cost of operation, maintenance and financing.

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8. What sources of water are available for storage in the project?

Water could be available for storage in all years when either the State or Federal side of San Luis fills early and pumping capacity is available without violating any of the Delta standards. Water is also available from the San Joaquin River in years when winter flood flows are sufficient to reach Mendota Pool. This past year is a good example. Finally, under the November 20 decision, 50,000 acre-feet will be available from the joint point of diversion for environmental use each year. That water is first stored in San Luis to the extent storage space is available. However, once San Luis fills, the 50,000 acre-feet of environmental water spills and is either lost or can be placed in to long-term storage in Madera Ranch. Once the water is stored in Madera Ranch it may be used for any of the purposes described in Question 3 above.

9. How will the project's impact on the priority 1 habitat be mitigated?

Implementation of the project will cause temporary disturbance during construction of the wells and spreading basins and potentially permanent disturbance in the areas around the above ground facilities. These impacts may be mitigated by enhancing the habitat values of the remaining 10,100 acres of the Ranch.

10. How does Madera Ranch fit with Interior's (b)(2) decision?

Madera Ranch was identified in Interior's November 20, 1997 (b)(2) decision as a potential site for a long-term groundwater storage project. Because the November 20, decision requires the project to be developed under the "beneficiary pays" principle, any money from environmental sources such as CALFED Bay-Delta Act funds would be credited toward the environmental share of project costs and result in an equal amount of environmental benefit. The amount of groundwater storage and retrieval capacity available for environmental use will be in direct proportion to the amount of funds contributed to project costs from environmental sources.

11. How do we know that Madera Ranch is the best property available for a groundwater banking project? Could there be a better site that would provide a better groundwater bank for CALFED's purposes?

Madera Ranch has several characteristics that make it an excellent choice as a groundwater banking site suitable for CALFED's purposes. Madera Ranch is located less than 8 miles from the Mendota Pool. As a result, a groundwater bank at Madera Ranch will be able to take water out of the Mendota Pool and return water to the Pool. This means that Madera Ranch will be able to receive water from either the state or federal projects, or any other water source that can deliver water to the Delta for export. Because water can be returned from Madera Ranch to the Mendota Pool, a groundwater bank at the Madera Ranch site will allow water to be physically delivered to any point that can receive Central Valley Project or State Water Project water. In

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addition, water from Madera Ranch can be backed into San Luis Reservoir, Lake Oroville, or Shasta Lake by exchange. This very wide range of operational flexibility makes Madera Ranch an ideal site from an operational perspective.

Madera Ranch is also a good choice as a groundwater banking site because it can provide significant terrestrial habitat for special status species. Generally, other groundwater banking sites will be under a current agricultural use that precludes habitat for special status species. By contrast, only approximately 3,000 acres of Madera Ranch is being used for agriculture with the remaining 10,600 acres as upland habitat identified by the F&WS as priority 1 habitat. Because the pre-feasibility analysis indicates that the groundwater banking project can be implemented consistent with habitat management at the site, Madera Ranch provides an additional environmental benefit which is likely not to be available at other sites.

Another benefit of the Madera Ranch site is that the current land use does not include significant groundwater pumping. As a result there is no conflict with the current use of groundwater at the site. This is different from most other sites because groundwater banks that share pumping with existing use are generally limited to extractions only during the "off-peak" season (October through March). Because the Madera Ranch site does not have such a conflicting use water could be delivered out of the groundwater bank during both "off-peak" and "on-peak" seasons. However, it should be noted that as with all groundwater banks, deliveries out of the bank must be managed to minimize or eliminate impacts on adjacent landowners.

Finally, because groundwater banks require significant amounts of land it will be necessary to purchase, or otherwise control through an agreement several thousands of acres of land. It is easiest to accomplish this by working with a minimum number of landowners. Madera Ranch has only one owner and that owner is able to contract for the sale of all 13,600 acres. It is unlikely that there is another site, similarly located near the Mendota Pool, that would afford such a simple contractual relationship.